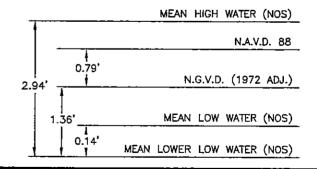


# NOTES:

- SOUNDINGS WERE TAKEN USING A RECORDING FATHOMETER OPERATING AT 208KHz AND A DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WAS USED TO OBTAIN HORIZONTAL POSITION.
- SOUNDINGS ARE IN FEET REFERRED TO MEAN LOW WATER (MLW) BASED ON NATIONAL OCEAN SERVICE (NOS) OBSERVATIONS AT PORTSMOUTH NAVAL SHIPYARD, AND WERE TAKEN ON MAY 14 & 15, 2003.
- 3. BENCH MARK IS BRASS DISK USE "ADP, 1978" LOCATED AT U.S. ARMY CORPS OF ENGINEERS BUILDING (FORT NORFOLK). ELEVATION = 10.50' MLW (NOS).
- 4. COORDINATES ARE IN U.S. SURVEY FEET REFERRED TO THE VIRGINIA STATE GRID (SOUTH ZONE) BASED ON NAD83.

# DIAGRAM OF DATUM PLANE



PURPOSE: CHANNEL WIDENING DATUM: N.O.S. MILW-Q.O'
ADJACENT PROPERTY OWNERS:

- (1) TARMAC OF AMERICA
- 2 VDOT ELIZABETH RIVER TUNNEL

## VICINITY MAP

PREPARED BY:

Waterway

Surveys & Engineering, Ltd. Virginia Beach, Virginia

PROPOSED CHANNEL WIDENING

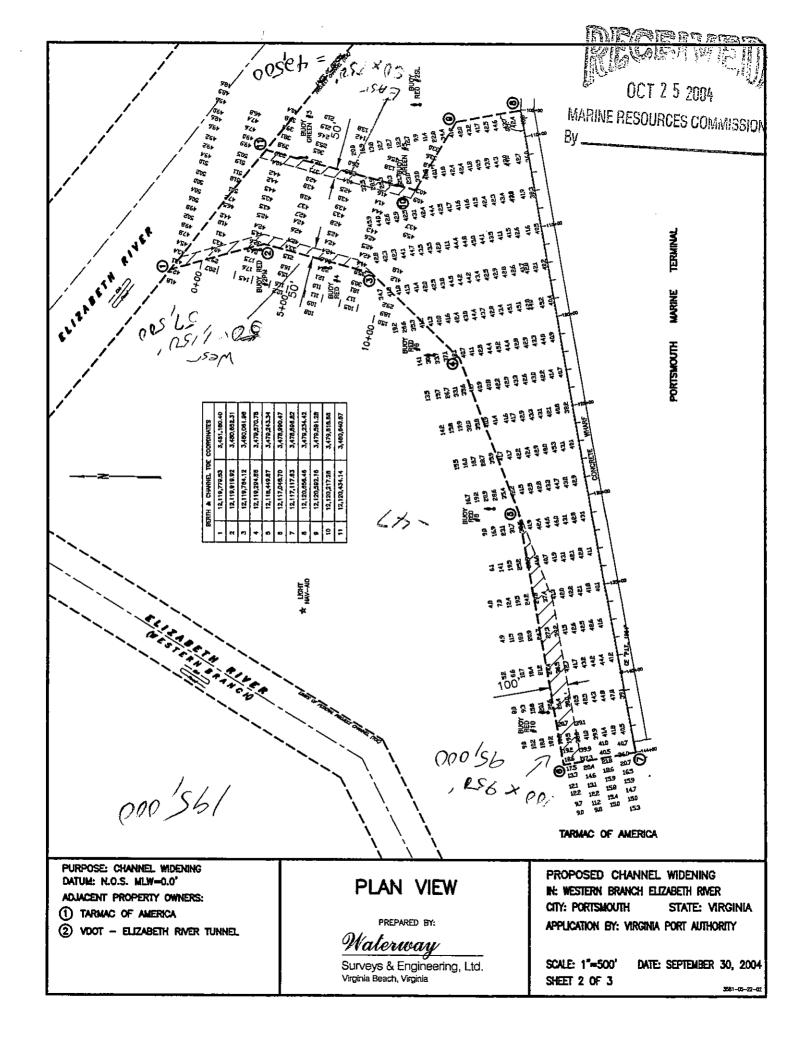
IN: WESTERN BRANCH ELIZABETH RIVER

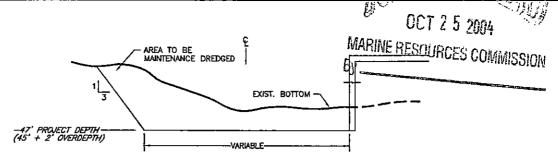
CITY: PORTSMOUTH STATE: VIRGINIA

APPLICATION BY: VIRGINIA PORT AUTHORITY

SCALE: N.T.S. SHEET 1 OF 3 DATE: SEPTEMBER 30, 2004

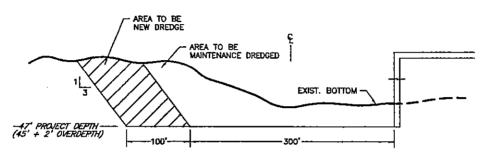
3581-05-22-0





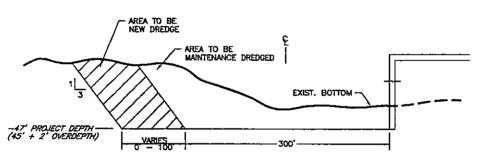
#### TYPICAL SECTION

STATION 135+00 TO STATION 106+50



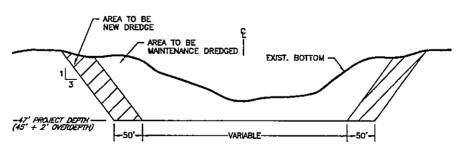
#### TYPICAL SECTION

STATION 135+00 TO STATION 144+50



#### TYPICAL SECTION

STATION 130+00 TO STATION 135+00



### TYPICAL SECTION

TYPICAL ENTRANCE CHANNEL

PURPOSE: CHANNEL WIDENING DATUM: N.O.S. MLW=0.0' ADJACENT PROPERTY OWNERS:

- (1) TARMAC OF AMERICA
- (2) VDOT ELIZABETH RIVER TUNNEL

## **CROSS SECTION**

PREPARED BY:

Waterway

Surveys & Engineering, Ltd. Virginia Beach, Virginia

PROPOSED CHANNEL WIDENING IN: WESTERN BRANCH ELIZABETH RIVER CITY: PORTSMOUTH STATE: VIRGINIA

APPLICATION BY: VIRGINIA PORT AUTHORITY

SCALE: N.T.S. SHEET 3 OF 3 DATE: SEPTEMBER 30, 2004